

i.e., during initialization and prior to transmission of C-REVERB. Claim 29 is equally clear and unambiguous. Claim 29 recites that the first transceiver adjusts its power level before transmission. Claim 29 specifies at what point the first transceiver adjusts its power level, i.e., before transmission of C-REVERB. Claim 30 also fully complies with 35 USC § 112, second paragraph. Claim 30 recites that the ATU-C adjusts its power level during initialization at a time before transmission of C-REVERB. Hence, Claim 30 specifies the configuration of the ATU-C, i.e., the ATU-C is configured to adjust the power level during initialization at a time before transmission of C-REVERB. Accordingly, Applicants respectfully submit that Claims 28 to 30 fully comply with 35 USC § 112, second paragraph. Should the Examiner continue to reject these claims on this ground, it is requested that the language alleged to be indefinite be identified with particularity.

Claims 1 to 3, 9 to 11, 13, 15, 16, 22 to 24, 26 and 28 to 31 have been rejected under 35 USC § 102 (e) as allegedly being anticipated by Gross et al. (i.e., U.S. Patent No. 6,549,520) Applicants respectfully traverse this ground of rejection.

“Anticipation...requires that the identical invention that is claimed was previously known to others and thus is not new...When more than one reference is required to establish unpatentability of the claimed invention anticipation under § 102 can not be found, and validity is determined in terms of § 103.” *Continental Can v. Monsanto*, 948 F.2d 1264, 1267 (Fed. Cir. 1991)(emphasis added).

“A patent is invalid for anticipation *when the same device or method, having all the elements and limitations contained in the claims*, is described in a single prior art reference.” *ATD Corporation v. Lydall, Inc.*, 159 F.3d 534, 545 (Fed. Cir.

1998)(emphasis added). See also *Crown Operations International, Ltd. v. Krone*, 289 F.3d 1367, 1375 (Fed. Cir. 2002)

The single reference must have an enabling disclosure. See *Advanced Display Systems Inc. v. Kent State University*, 54 USPQ 2d 1673, 1679 (Fed. Cir. 2000)(“Accordingly, invalidity by anticipation requires that the four corners of *a single, prior art document* describe every element of the claimed invention, expressly or inherently, such that *a person of ordinary skill in the art could practice the invention without undue experimentation.*”)(emphasis added); See also, *PPG Industries, Inc. v. Guardian Industries Corp.*, 37 USPQ 2d 1618, 1624 (Fed. Cir. 1996)(“To anticipate a claim, a reference must disclose every element of the challenged claim and *enable one skilled in the art to make the anticipating subject matter.*”)(emphasis added)

“To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. *Such evidence must make clear that the missing descriptive matter is necessarily present* in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” *Continental Can*, 948 F.2d at 1268. (emphasis added)

“*Inherency, however, may not be established by probabilities or possibilities.* The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981)(emphasis added). See also, *Continental Can*, 948 F.2d at 1269.

“[T]he initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention rests upon the examiner...In relying upon inherency, *the examiner*

*must* provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ 2d 1461, 1464 (BPAI 1990)(emphasis in original)

When evaluated under the above legal standards, the rejection of Claims 1 to 3, 9 to 11, 13, 15, 16, 22 to 24, 26 and 28 to 31 as allegedly being anticipated by Gross et al. is in error and should be withdrawn.

Applicants’ invention, as recited in Claim 1, is directed to a method of reducing power required for transmitting a signal from a first transceiver to a second transceiver. The method includes the steps of: estimating at the first transceiver an excess amount of power used by the first transceiver for transmitting the signal, *wherein the excess amount of power for the signal is based at least in part on a value obtained during initialization*; reducing a power use of the first transceiver by the excess amount of power to a reduced power level; and transmitting the signal from the first transceiver using the reduced power level, wherein the reduced power level achieves a transmission rate of the signal within a predefined tolerance of a target rate thereof.

Gross et al. fails to teach or suggest Applicants’ invention as recited in Claim 1. For example, nowhere does Gross et al. teach or disclose that the excess amount of power for the signal is based at least in part on a value obtained during initialization. Gross et al. explains changing power levels at col. 11, line 51 to col. 13, line 11 and col. 22, line 58 to col. 23, line 9. Specifically, Gross et al. states:

In the preferred embodiment of the invention, a probing signal is used to determine the required decrease in upstream transmit power. In particular, *after detecting a disturbance event such as activation or deactivation of a telephone or interference from other sources which can disrupt*

*communications, the transmitter portion of the ATU-R (the 'upstream transmitter') transmits a test signal over the subscriber line at varying power levels and measures the echo at the receiver portion of the ATU-R (the 'downstream receiver'). The resultant measurement is used to determine an upstream transmission power level that minimizes echo at the downstream receiver or that at least renders it acceptable. (See Gross et al., col. 22, lines 1 to 13)(emphasis added)*

In other words, the change in power level is determined after a disturbance is detected by sending probing signals over the subscriber line. Nowhere, does Goss et al. teach or suggest a method wherein the excess amount of power for the signal is based at least in part on a value obtained during initialization. As such, Gross et al. cannot possibly anticipate Applicants' invention, as recited in Claim 1. The Examiner attempts to rely upon signal-to-noise ratio (SNR) referred to at col. 12, line 22 to col. 14, line 46 of Gross et al. The only portion of this passage in Gross et al. that refers to changing power levels is col. 12, line 51 to col. 13, line 11. The only portion of the passage at col. 12, line 51 to col. 13, line 11 that refers to SNR reads as follows:

*Alternatively, the downstream modem may select one of several different power levels for use based on the communications conditions prevailing at the time resultant from the disturbance event. For example, the downstream modem may be activated to send a test signal into one or more upstream subchannels and to monitor the leakage (i.e., the echo) of this signal into one or more downstream channels as determined, for example by the SNR's on these subchannels; the power level at which the downstream modem transmits upstream may then be adjusted accordingly in order to minimize the effects of echo. (emphasis added)*

The above passage of Gross et al. makes clear that the power level is determined based on the communications conditions prevailing at the time of the disturbance. There is no teaching or suggestion of the claimed method including the limitation that the excess

amount of power for the signal is based at least in part on a value obtained during initialization. Accordingly, Claim 1 is clearly patentable.

Applicants' invention, as recited in Claim 13, is directed to a method of reducing power required for transmitting a signal from a first transceiver to a second transceiver. The method includes the steps of: determining at the second transceiver an amount of excess power in the signal transmitted from the first transceiver; calculating at the second transceiver an attainable reduced power level for the transmitted signal; and communicating the reduced power level between the second and first transceivers, *wherein the first transceiver adjusts its power level during a first initialization and prior to a time period that would require a second initialization.*

Gross et al. does teach or suggest Applicants' invention as recited in Claim 13. For example, Gross et al. fails to teach or suggest a method of reducing the required power for transmitting a signal from a first transceiver to a second transceiver where the first transceiver adjusts its power level during a first initialization and prior to a time period that would require a second initialization. The Examiner references col. 8, line 5 to col. 9, line 65 and col. 13, lines 13 to 55 of Gross et al. as allegedly teaching this feature. The passage at col. 8, line 5 to col. 9, line 65 refers to the creation of the secondary control channel table. Moreover, the Examiner is incorrectly attempting to equate SNR with power. SNR is not power. The passage at col. 13, lines 13 to 55 discloses changes to parameters other than power level. As such, it clearly does not teach or suggest a first transceiver adjusting its power level during a first initialization and prior to a time period that would require a second initialization. As explained in connection with Claim 1, Gross et al. discusses power level changes at col. 11, line 51 to col. 13, line

11 and col. 22, line 58 to col. 23, line 9. These passages of Gross et al. teach that a change in power level is determined after a disturbance is detected by sending probing signals over the subscriber line. Nowhere does Gross et al. teach or suggest a first transceiver adjusting its power level during a first initialization and prior to a time period that would require a second initialization. Hence, Claim 13 is clearly patentable over Gross et al.

Applicants' invention, as recited in Claim 15, is directed to an apparatus for reducing power required for transmitting a signal from a central office asymmetric digital subscriber line (ADSL) termination unit (ATU-C) to a remote ADSL termination unit (ATU-R), wherein the ATU-C includes a processor for controlling the ATU-C to implement processing including the acts of: estimating an excess amount of power used by the ATU-C for transmitting the signal, *wherein the excess amount of power for the signal is based at least in part on a value obtained during initialization*; reducing a power use of the ATU-C by the excess amount of power to a reduced power level; and transmitting the signal from the ATU-C using the reduced power level, wherein the reduced power level achieves a transmission rate of the signal within a predefined tolerance of a target rate thereof.

As explained in connection with Claim 1, Gross et al. does not teach or suggest a method of reducing power required for transmitting a signal wherein the excess amount of power for the signal is based in part on a value obtained during initialization. On the contrary, Gross et al. makes clear that the power level is determined based on the communications conditions prevailing at the time of the disturbance. As such, Gross et al. does not teach or suggest Applicants' invention as recited in Claim 1.

Applicants' invention, as recited in Claim 26, is directed to an apparatus for reducing power required for transmitting a signal from a central office asymmetric digital subscriber line (ADSL) termination unit (ATU-C) to a remote ADSL termination unit (ATU-R), wherein the ATU-R includes a processor for controlling the ATU-R to implement processing including the acts of: determining an amount of excess power in the signal transmitted from the ATU-C; calculating an attainable reduced power level for the transmitted signal; and communicating the reduced power level to the ATU-C, *wherein the ATU-C adjusts its power level during a first initialization and prior to a time period that would require a second initialization.*

As explained in connection with Claim 13, Gross et al. does not teach or suggest a transceiver configured to adjust its power level during a first initialization and prior to a time period that would require a second initialization. As such, Claim 26 is clearly patentable.

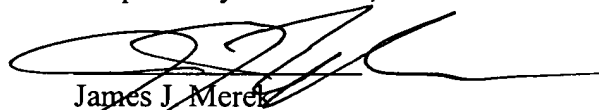
Applicants' invention, as recited in Claim 31, is directed to a method of reducing power required for transmitting a signal from a first transceiver to a second transceiver. The method includes the steps of: estimating an excess amount of power used by the first transceiver for transmitting the signal, wherein the excess amount of power for the signal is estimated in accordance with a measured value of upstream attenuation; reducing a power use of the first transceiver by the excess amount of power to a reduced power level; and transmitting the signal from the first transceiver using the reduced power level, wherein the reduced power level achieves a transmission rate of the signal within a predefined tolerance of a target rate thereof.

Gross et al. does not teach or suggest Applicants' invention as recited in Claim 31. For example, Gross et al. fails to teach or suggest the claimed method wherein the reduced power level achieves a transmission rate of the signal within a predefined tolerance of a target rate. Nowhere does Gross et al. teach or suggest performing a power reduction such that the transmission rates stays within a *predefined* target tolerance rate. The passages relied upon by the Examiner (i.e., col. 14, lines 9 to 58 and col. 11, line 52 to col. 12, line 45) do not teach Applicants' invention. The passage in Gross et al. at col. 14, lines 9 to 58 explains rate reduction separate and apart from any power level changes. The passage in Gross et al. at col. 11, line 52 to col. 12, line 45 explains that the power level change is based on the disturbance event without any consideration given to a predefined target transmission rate. Hence, Claim 31 is clearly patentable.

Applicants respectfully submit that the subject patent application is in condition for allowance. It is believed that no fees are due. However, should that determination be incorrect, the Commissioner is hereby authorized to charge any deficiencies to Deposit Account No. 50-0562 and notify the undersigned in due course.

Date: 2/24/07

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